

REMARKS

In the Office Action, Applicant's election of Group I was acknowledged, and claims 17-24 were withdrawn from consideration.

The Abstract of the Disclosure was objected to for containing more than 150 words. The Abstract has been amended herein to limit it to 150 or fewer words.

Withdrawal of the objection is requested.

The drawings were objected to for various reasons. In response, claim 3 has been amended to delete reference to an output driven member, which is not shown in the drawings. This amendment to claim 3 is thus believed to overcome the drawing objection based on the language of claim 3. In addition, the specification has been amended on page 7, line 9 to indicate that "A retainer member such as a washer 70 is engaged with outer end 36 of input shaft 18 . . . ." This clarification is believed to obviate the objection to the drawings regarding claim 13, which recites a retainer member. Because washer 70 is already shown in the drawings, no amendments to the drawings were made to address this objection.

The drawings were also objected to because the claims recite the selective engagement members engaged with the handle and with the input member, and the drawings show the engagement member 26 spaced from the handle 16. However, the engagement members 26 are clearly engaged with hub member 22 and handle 16 in turn is mounted to hub member 16, such that the engagement members 26 are engaged with the handle 16 through hub member 22. This construction is believed to support a fair interpretation of the term "engaged" as used in the claims, such that the drawings as originally submitted are believed to be in compliance with 37 CFR 1.83(a).

The drawings have been amended herein to add reference numeral 61 for passage in Fig. 4, as this reference numeral was missing from the drawings.

All objections to the drawings are believed to be addressed. Withdrawal of the objection to the drawings is therefore requested.

The disclosure is objected to because the output driven member in claim 3 and the retainer member in claim 13 were not designated by a reference numeral. Claim 3 has been amended to eliminate reference to the output driven member, thus obviating this objection. Regarding claim 13, as noted above, the specification has been amended on page 7, line 9 to indicate that "A retainer member such as a washer 70 is engaged with outer end 36 of input shaft 18 . . . ." Accordingly, the disclosure is believed to be in proper form.

To correct typographical errors found upon a review of the application, the following amendments have been made. First, page 9, line 4 has been amended to replace reference numeral 51 with reference numeral 61 for the passages. Second, page 7, line 19 was amended to add a missing comma.

Also in the Office Action, claims 1-16 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Claim 3 has been amended, and the terms of claims 3 and 4 are not seen to conflict. Claim 4 does not depend from claim 3, such that use of the noted terms is not together. In addition, the noted terms are both used in the specification and are believed to be properly descriptive of the relevant components. For these reasons, the rejection of claims 3 and 4 under 35 U.S.C. § 112 is not well founded.

The Examiner additionally cites the term "an actuating force" in claims 1 and 4 as a basis for the rejection under 35 U.S.C. § 112. Claims 1 and 4 have been amended to clarify use of the term "an actuating force" so as to properly comply with the requirements of 35 U.S.C. § 112.

Claim 13 has been amended to provide antecedent basis for "the hub."

In light of the amendments and the foregoing remarks, withdrawal of the rejection of claims 1-16 under 35 U.S.C. § 112 is respectfully requested.

Additionally in the Office Action, claims 1-7 are rejected under 35 U.S.C. § 102(b) as being anticipated by Taniwaki, U.S. Patent No. 3,944,309. Claim 1 has been amended in a manner believed to patentably define over the Taniwaki patent. Claims 2-7 depend directly or indirectly from claim 1.

The Office Action also indicates that claims 8-16 would be allowable if rewritten to overcome the rejections under 35 U.S.C. § 112, second paragraph, and to include all of the limitations of the base claim and any intervening claims. Claims 8, 13, and 14 have been rewritten in independent form to include all of the limitations of the base claim and any intervening claims. In addition, claim 16 has been amended to replace "enable" with "engageable" in line 3 of the claim. This error was found upon a review of the claim. The remaining claims depend from one of claims 8, 13, and 14. In view of the Examiner's indication, it is thus believed that claims 8-16 are in allowable form.

Favorable reconsideration and allowance of this application are respectfully requested in light of the foregoing amendments and the remarks that follow.

#### Rejection of Claims 1-7 Under 35 U.S.C. §102

Claim 1 recites an improvement for a mobile storage system that includes one or more movable storage units and a drive arrangement associated with each unit for moving the storage unit in response to application of an actuating force to an actuator. The improvement includes a torque limiting mechanism interposed between the actuator and the drive arrangement. The torque limiting mechanism is defined as transferring the actuating force from the actuator to the drive arrangement when the actuating force is below a predetermined threshold. In addition, claim 1 is amended to require that the torque limiting mechanism prevents transfer of the actuating force from the actuator to the drive arrangement when the actuating force is above the predetermined threshold.

The Taniwaki patent does not show or suggest a torque limiting mechanism as claimed. In Taniwaki, a manually movable wheeled storage rack includes a plurality of wheeled storage racks for bookshelves 1A-1E that ride on rails 12 laid on the floor. An operating handwheel 14 is carried at a suitable height from the floor at the outer end of a shaft extending through one side wall of each storage rack or bookshelf. A driving sprocket 16 is attached to the inner end of the shaft. A driven sprocket 18 is attached to the axle of

the driving wheel 10 outwardly and coaxially thereof. The wheels are attached to the bottom plate of each storage rack or bookshelf. The driving and driven sprockets 16 and 18 are drivingly connected with each other in an endless power transmission chain 20. (col. 2, lines 32-61). The rack is further provided with a locking device so as to hold a storage rack in a desired position. The Examiner contends that the mobile storage system of the Taniwaki patent includes a torque limiting mechanism (1) that is interposed between the handwheel 14 and the driving sprocket 16 and driven sprocket 18 and chain 20, etc. and (2) that prevents application of an actuating force to the driving sprocket 16 and driven sprocket 18 and chain 20, etc. exceeding a predetermined threshold. In reference to claim 4, the Examiner further contends that the alleged torque limiting mechanism includes driving sprocket 16b, toothed wheel 24b, etc. of the third embodiment of the locking device. However, the rack of the Taniwaki patent lacks a torque limiting mechanism as is specified in amended claim 1.

The third embodiment of the locking device is shown in Figs. 6 and 7 of Taniwaki. It is substantially similar in construction to the second embodiment of the locking device (FIGS. 4 and 5) except the arrangement of the H-shaped detent member, which is also substantially similar in construction to the detent member 26 of the second embodiment. That is, shaft rod 28b of a detent member 28 is rotatably journaled between an inner wall 30 and an outer wall of the double side wall through an auxiliary panel or wall 32, and an engaging rod 28a extends through coaxial arcuate slots formed in the outer wall 30 and the auxiliary panel 32. An operating knob 36 is attached to the outer end of the shaft rod 28b extending out of the side wall, and a tension spring 34 has one end fixed to a point of the inner wall 30 immediately below the inner end of the shaft rod 28b, and its other end fixed to the inner end of the engaging rod 28a (col. 3, line 56 – col. 4, line 4). When the operator grips the operating knob 36 and rotates it in the counterclockwise direction to release the engaging rod 28a from the toothed wheel 24b, the locking device is released so that the operator may rotate the handwheel 14 to move the storage rack or bookshelf to any

desired position. To lock the handwheel 14 and hence the driving wheel 10, the operator rotates the operating grip 36 in the clockwise direction to engage the engaging rod 28a with the toothed wheel 26b as shown in FIG. 7. Thus, the handwheel 14 and hence the wheel 10 are locked so that the storage rack or bookshelf may be securely held stationary in position. As the operating knob 36 is rotated in the clockwise or counterclockwise direction, the tension spring 34 is extended and then passes beyond its change point so that the engaging rod 28a may be securely held in the locking position shown in FIG. 7 or in the released position. Even when the engaging rod 28a is pressed against the crest of the tooth of the toothed wheel 24b, the toothed wheel 24b rotates as the storage rack or bookshelf is moved so that the engaging rod 28a may be readily forced to fall into the space between the teeth of the toothed wheel 24b under the force of the tension spring 24. (col. 4, lines 5-27).

Thus, the locking device of Taniwaki does not prevent application of an actuating force to the drive arrangement above a predetermined threshold and transfer an actuating force to the drive arrangement below the predetermined threshold, as amended claim 1 requires. Instead, the locking device of the Taniwaki reference locks the handwheel 14 by engagement of engaging rod 28a with the toothed wheel. Rotation of operating grip 36 releases and locks the handwheel 14. The Tanawaki reference discloses a locking mechanism for selectively preventing movement of a rack, but does not show or suggest a torque limiting mechanism as claimed, for transferring an actuating force below a predetermined threshold to the drive arrangement and for preventing the transfer of an actuating force above a predetermined threshold to the drive arrangement. Accordingly, claim 1 is believed to patentably define over the Tanawaki reference. A review of the remaining references of record similarly fails to show or suggest the claimed subject matter, and claim 1 is thus believed to be allowable. Claims 2-7 depend directly or indirectly from claim 1, and are thus also believed allowable for the above reasons as well as in view of the subject matter of each claim.

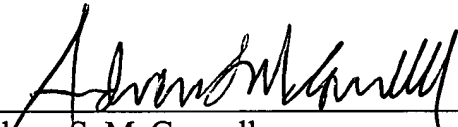
CONCLUSION

Applicant's attorney has made every effort to place the application in condition for allowance with claims 1-16, and such action is earnestly solicited.

A check in the amount of \$84 is enclosed for payment by a large entity of an additional independent claim. Authorization is given to charge any additional fees or credit any overpayment in connection with this or any other communication to Deposit Account No. 50-1170.

The Examiner is encouraged to contact the undersigned by phone if questions remain after consideration of this response, or if such would otherwise facilitate prosecution.

Respectfully submitted,

By   
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Date:

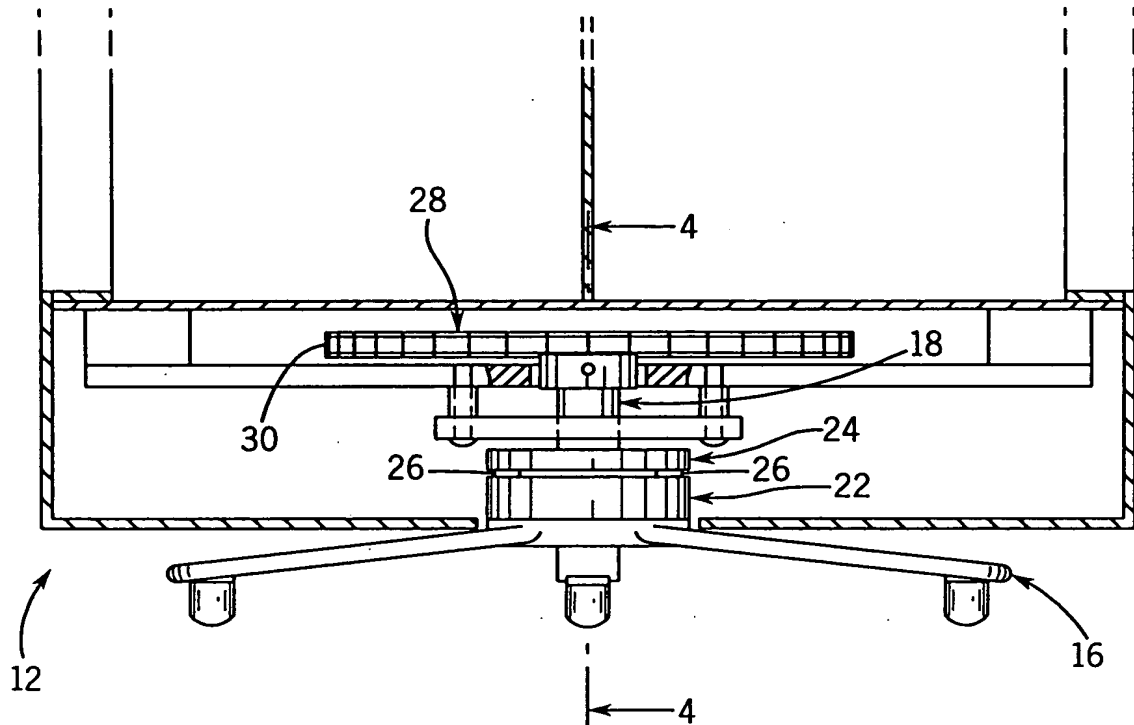
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FIG. 3



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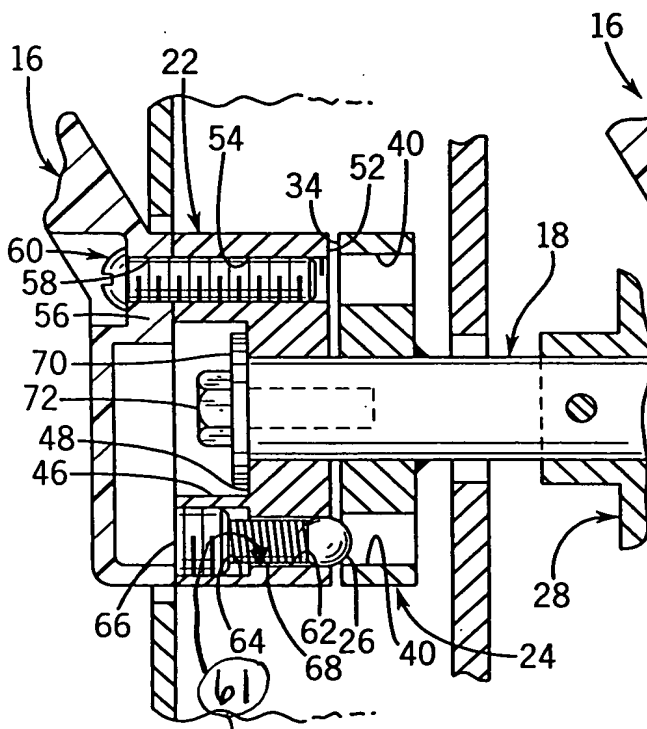


FIG. 4

Reference numeral 61 added

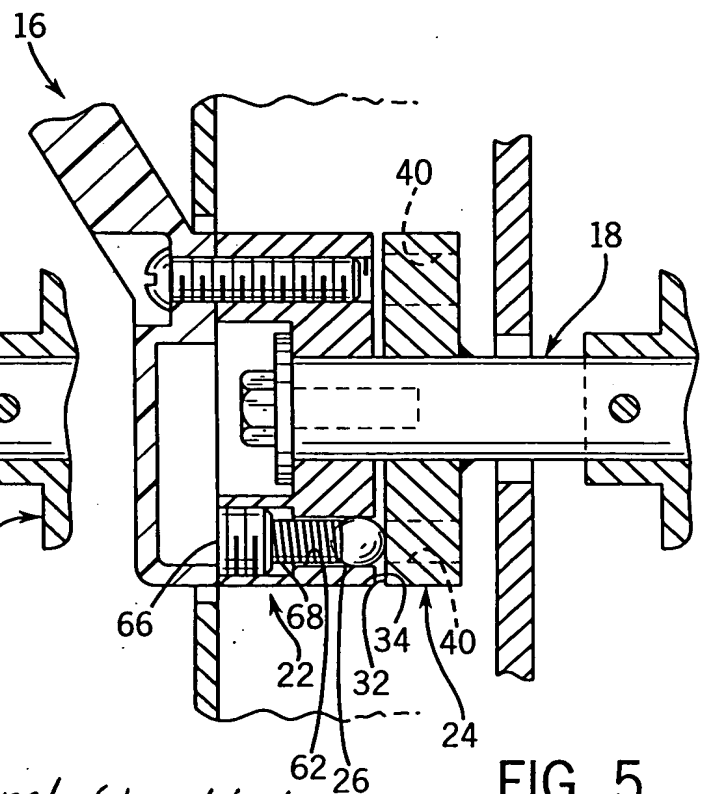


FIG. 5